Important Advances in Clinical Medicine

Epitomes of Progress — Radiology

The Scientific Board of the California Medical Association presents the following inventory of items of progress in radiology. Each item, in the judgment of a panel of knowledgeable physicians, has recently become reasonably firmly established, both as to scientific fact and important clinical significance. The items are presented in simple epitome and an authoritative reference, both to the item itself and to the subject as a whole, is generally given for those who may be unfamiliar with a particular item. The purpose is to assist the busy practitioner, student, research worker or scholar to stay abreast of these items of progress in radiology which have recently achieved a substantial degree of authoritative acceptance, whether in his own field of special interest or another.

The items of progress listed below were selected by the Advisory Panel to the Section on Radiology of the California Medical Association and the summaries were prepared under its direction.

Reprint requests to: Division of Scientific and Educational Activities, California Medical Association, 731 Market St., San Francisco, CA 94103

Epidural Venography for Lumbar Disk Disease

THE EPIDURAL VENOUS PLEXUS was first visualized in 1954 when inadvertent catheter wedging occurred during cardiac catheterization. Since then, attempts at visualizing these veins have included lumbar spinous process intraosseous contrast injections and lower extremity venous injections. Because of inconsistent results and pain, these procedures did not gain popularity.

Gargano introduced the technique of selective ascending lumbar vein catheterization in 1974. This proved much more reliable and nearly painless. This procedure can generally be accomplished without admitting patients to hospital. Percutaneous puncture and catheterization of one or both femoral veins is carried out. One catheter tip usually is placed in an ascending lumbar vein (part of the external vertebral plexus) and an optional second catheter may be placed in the presacral plexus or opposite ascending lumbar vein. Iodinated water soluble contrast is injected with serial filming during abdominal compression and forced expiration. The patient may be released from the department within one to two hours.

The findings of extradural compression of the internal vertebral venous plexus include varying combinations of the following: (1) bilateral or unilateral occlusion of the veins at a disk level, (2) asymmetric focal distortion of the usually regular venous pattern, (3) occlusion or distortion